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	First Named Inventor	Pauli Koutonen
	Art Unit	3654
	Examiner Name	J.Q. Nguyen
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Date	July 2, 2003

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Applicant: Pauli Koutonen Date: July 2, 2003
Date Filed: July 13, 2001 Docket No.: FORSAL-16
App. No.: 09/905,550 Art Unit: 3654
For: Method and Apparatus for Examiner: J.Q. Nguyen
Winding a Paper Web

Technology Center 3600

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Brief of Appellants

Technology Center 3600
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Subsequent to Applicant's Notice of Appeal, dated May 2, 2003, this Appeal Brief is submitted.

1. **Real Party In Interest (37 C.F.R. §1.192(c)(1))**

This application has been assigned to Metso Paper, Inc. a Finnish corporation having offices at Helsinki, Finland.

2. **Related Appeals And Interferences (37 C.F.R. §1.192(c)(2))**

There are no related appeals or interferences.

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3. Status of Claims (37 C.F.R. §1.192(e)(3))

The application was filed as a bypass application on July 13, 2001, claiming priority on International Application No. PCT/FI00/00041 having a priority date of January 22, 1999. The bypass application was filed with claims 1–20. On March 11, 2002, all the claims were rejected under 35 U.S.C. §112, and claims 1–5 were rejected as anticipated under 35 U.S.C. section 102 (b), and claims 6–20 were rejected as obvious 35 U.S.C. §103(a). On July 9, 2002, claim 12 was canceled, and the claims were amended. On Aug. 30, 2002, in a Final Action the examiner maintained the rejection of claims 1–5 as anticipated under 102(b) and of claims 6–11 and 13–20 as obvious under §103(a). A telephone interview was conducted on September 13, 2002, (the contents of which were summarized in applicant's response on September 23, 2002) and on September 23 applicant submitted an after final response which revised claim 1 and submitted a new claim (claim 21 based on claims 6 and 20 as discussed during the interview).

In an advisory action mailed September 25, 2002, the examiner refused entry of applicant's after final amendments. On November 25, 2002 applicant further amended the claims and filed a RCE application.

On February 5, 2003, in a nonfinal action. the examiner rejected claims "1–21" [*sic*] actually a rejection of claims 1–11, 13–21, as claim 12 is no longer in the application. A phone interview was conducted on April 10, 2003, as recorded in applicant's interview summary filed July 2, 2003, with the notice of appeal of the same date.

Claims 1–11 and 13–21 remain pending in the application.

Claim 12 is canceled.

Claims 7, 9, 15, and 17 have been canceled by an amendment not yet entered.

Claims 1–11 and 13–21 stand rejected under 103(a) over *Stefanoni* (US 5,217,177) and Applicant's admitted prior art.

Claims 1–6, 8, 10, 11, 13–14, 16, and 18–21 are the subject of this appeal.

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4. Status of Amendments (37 C.F.R. §1.192(c)(4))

The amendments canceling claims 7, 9, 15, 17 and correcting claim dependency and indefinite language in claims 5, 8, and 16, have not yet been acted on by the examiner.

5. Summary of the Invention (37 C.F.R. §1.192(c)(5))

The invention is a method and apparatus for slitting a paper web longitudinally to divide the web into slit webs of desired width in the direction the paper is traveling (p. 1, lines 11–13; p. 2, lines 2–4) while the paper web is produced on a papermaking line, thus eliminating the winder/rewinder equipment conventionally required at the end of the papermaking line (p. 4, lines 24–28). At least two sets of slitting blades are used sequentially one after the other to cut the full width paper web being formed (p. 3, lines 11–15) on the papermaking machine. The first set of blades 15B cuts the web into a first set of widths (p. 4, lines 4–5; p. 7, lines 10–12) which are wound onto cores of first selected widths (p. 4, line 3), and, while the first set of blades is cutting the paper web a second set of blades 15A are adjusted to widths which are different than the first set of widths (p. 3, lines 11–15; p. 4, lines 4–5; p. 7, lines 23–27). Then all blades 15A, 15B are removed from cutting the paper allowing the paper to be full width for a short time (p. 5, lines 9–11) while the web is cut obliquely across the web (p. 5, lines 22–23). Then the paper web is cut with the second set of blades 15A to a second set of widths (p. 4, lines 9–10) which are wound onto cores (p. 6, line 7) of second selected widths (p. 4, line 3). In this way on-machine slitting is made practical as the papermaking machine does not need to be stopped, nor does the paper need to be sent to the pulper during the change of slit web widths (p. 4, lines 1–4).

6. Issues (37 C.F.R. §1.192(c)(6))

Issue 1. Has the examiner made out a prima facie case of obviousness under U.S.C. 103(a) over *Stefanoni* (US 5,217,177) and Applicant's admitted prior art, with respect to claims 1–6, 8, 10, 11, 13–14, 16, and 18–21.

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- A. Has the examiner provided some suggestion of the desirability of doing what the inventor has done? Do the references expressly or impliedly suggest the claimed invention?
- B. Does the examiner present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references?
- C. Is there teaching or suggestion to make the claimed combination and a reasonable expectation of success which can both be found in the prior art, and not based on applicant's disclosure?

7. Grouping of Claims (37 C.F.R. §1.192(c)(7))

Claims 1–6, 8, 10, 11–14, 16, and 18–21 stand rejected on a single grounds but do *not* stand or fall together.

8. Argument (37 C.F.R. §1.192(c)(8))

Discussion of References

Applicant's admitted prior art (AAPA) admits as old a slitter having two winding stations (p. 2, lines 14–15, and 17–18). And applicant admits that the slitter blades in prior art slitters are adjustable (p. 2, lines 20 and 22). And further, applicant admits that in the prior art two cutting assemblies which are adjustable have been used as shown in EP Pub. No. 0 308 438 (p. 2, lines 26–27).

Stefanoni (US 5,217,177) is a slitter for making individual rolls of tape from a parent roll. *Stefanoni* discloses two sets of cutting blades which can alternately cut a web one after the other. *Stefanoni* has two sets of blades so that one set may be replaced while the other set is cutting the tape web, thus the machine does not have to be stopped to replace blades that become dull (col. 1, line 6 to col. 2, line 2). Thus *Stefanoni* can change blades without stopping the cutting process. *Stefanoni* also teaches how to eliminate time lost to stopping the machine to unload finished rolls of tape (FIG. 5A–5H). Two shafts 20 (FIG. 6, FIG 5B)

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alternate having the spools 44 (FIG. 5A) of tape wound thereon so that the spools 44 on one shaft 20 may be unloaded while spools 44 on the other shaft 20 are being wound.

Because of the arrangement for transitioning from the winding of one spool 44 on one shaft 20, to winding on a new spool 44 on a second shaft 20, the width of the tape being wound cannot change between spools because the slit tape web is momentarily wound on both spools (FIG. 5C). The examiner has not suggested that *Stefanoni* shows or suggests changing tape width without stopping the machine.

The examiner deems the *Stefanoni* slitting assemblies [containing blades] to be adjustable, or in the alternative, because it is old to have adjustable slitting assemblies, the examiner believes it would be obvious to make *Stefanoni*'s blade assemblies adjustable. *Stefanoni* does not discuss the adjustment of the slitter blades to change the width of the tapes formed. However, applicant introduced extrinsic evidence by way of Exhibit A attached to applicant's amendment filed July 9, 2002, from the web site of the assignee of the *Stefanoni* patent. Exhibit A shows a device similar or identical to the device disclosed in *Stefanoni* in which the blades are described as adjustable, and in which it is stated that the "TIME NEEDED FOR SIZE CHANGEOVER... [is] 10 minutes" Exhibit A, p. 1.

Therefore applicant agrees *Stefanoni* shows two sets of blades for cutting the web where the blades are adjustable. However there is nothing within *Stefanoni* to indicate one set of blades is adjustable independent of the other, and further nothing suggesting changing the position of one set of blades while the other is cutting the web. Further, there is no suggestion within *Stefanoni* to have winding cores (roll centers) of first selected widths in a first winding station, and the roll cores (roll centers) of different widths in second winding stations.

There is no discussion in *Stefanoni* about the desirability of eliminating machine stoppage while the width of the slit webs is changed. *Stefanoni* is not mechanically designed to change web widths while the slitter is operating because the tape web is wound from the formed tape roll directly on to the second set of spools/cores which therefore must be of the same width (see FIG. 5C).

It should be noted with respect to FIGS. 2 and 3 of *Stefanoni* that the rolls of tape on

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the upper shaft 20 appear to be a of slightly different widths as compared to the rolls of tape on the lower shaft 20, however the figures must be fairly interpreted to show, despite the slight variation in the drawings, that the tape spools and tape widths are the same. Precision in this aspect of the drawing was in no way important in *Stefanoni*, and *Stefanoni* taken as a whole, both because of the mechanical arrangement, and lack of any discussion of changing tape width, and the uniform spacing shown in FIGS. 11 and 12, makes it clear that the drawings are meant to show uniform tape widths on the upper and lower shafts 20. The examiner has not suggested that *Stefanoni* shows spools/cores of different widths.

The difference between the prior art of record, particularly applicant's admitted prior art and *Stefanoni*, and applicant's claimed invention, is that the prior art does not show cutting a paper web in a papermaking line with a first set of cutting blades, while simultaneously adjusting the width of a second set of cutting blades followed by cutting with the second set of blades. Nor does it show a slitter with two sets of adjustable slitting blades and two winding stations with different spool/core widths.

A. Has the examiner provided some suggestion of the desirability of doing what the inventor has done? Do the references expressly or impliedly suggest the claimed invention?

In the Office Action dated February 5, 2003, from which this Appeal is taken, the examiner makes his case for obviousness by stating on p. 2, lines 8-11 "That the change in the one set of blades includes an adjustment in the widths between the blades would have been an obvious matter of design choice to a person having ordinary skill in the art based on factors such as preference and operational criteria."

This statement makes clear that the examiner does not find the suggestion to do what applicant has done in the references of record. Rather the examiner bases his rejection on knowledge of a person of ordinary skill in the art.

In the alternative, the examiner argues on p. 2, lines 18-21 "Or alternatively, it would have been obvious to a person having ordinary skill in the art to provide the admitted prior art

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apparatus with slitting assemblies in succession as taught by Stefanoni to facilitate adjustment/changing and reduce downtime.” The examiner here is not arguing that the suggestion to combine the references and the motivation for doing so are found in the references of record. Nor does the examiner provide any explanation of how applicant’s process of adjusting the second set of blades to different widths while the first set of blades are cutting web slits is taught when *Stefanoni* has no teaching that the two sets of blades are or can be positioned at different widths.

On p. 3, lines 3–5, the examiner states “It should be noted that the main purpose of Stefanoni in the provision of two sets of the blades is ‘the elimination of dead times to change blades’ (col. 1, lines 61–62), which appears to also be applicant’s purpose [for] the two sets of blades.” Applicant’s motivation is not relevant to what the prior art shows. What is important is whether motivation is present in *the references* to do what applicant has done. *Stefanoni*’s motivation in eliminating dead times is not related to changing blade positions to cut different web widths.

B. Does the Examiner present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references?

Because the examiner has not found within the references a suggestion for doing what the inventor has done, nor any suggestions within the references for the combining of the references, the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to be obvious in light of the teaching of the references. The statement by the examiner on p. 3, lines 5–8 “That the change includes an adjustment in the widths between the blades would have been an obvious matter of design choice to a person having ordinary skill in the art based on factors such as preference and operational criteria.” is only an unsupported statement of a conclusion--there is no discussion or reasoning, which is related to the prior art references, or showing what preference and what operational criteria would lead to applicant’s invention, nor any reasoning on how the prior

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art leads to applicant's claimed invention

C. Is there a teaching of a suggestion to make the claimed combination and the reasonable expectation of success which can both be found in the prior art, and not based on applicant's disclosure?

To properly perform the obviousness analysis, the person of ordinary skill must be placed at the time of the invention and be unaware of applicant's solution. It is from this vantage point, and only this vantage point, where the analysis starts. From there it is incumbent upon the examiner to provide convincing reasoning why the artisan would have found the claimed invention obvious. And more particularly, how the suggestion or motivation, and expectation of success for combining references is also found within the prior art.

In *Sensonics Inc. v. Aerosonic Corp.*, 38 USPQ2d 1551, 1554 (Fed. Cir. 1996) the Court agreed with the trial court that the references did not render the invention obvious stating:

There is no teaching or suggestion whereby a person of ordinary skill would have been led to select these mechanical and electrical structures and concepts and combine them as did DeMayo in the '114 invention. To draw on hindsight knowledge of the patented invention, when the prior art does not contain or suggest that knowledge, is to use the invention as a template for its own reconstruction – an illogical and inappropriate process by which to determine patentability. *W.L. Gore & Assoc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983). The invention must be viewed not after the blueprint has been drawn by the inventor, but as it would have been perceived in the state of the art that existed at the time the invention was made. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985).

The Examiner has not made a legally sufficient argument for how a person of ordinary

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skill in the art at the time of the invention would have found the claimed invention obvious in view of *Stefanoni* and applicant's Admitted Prior Art. On the contrary, applicant has set out above distinctions between the claimed invention and the references, which the person of ordinary skill is not in possession of without the applicant's disclosure as a blueprint.

Limitations which in combination provide a separate grounds for patentability so that the claims do not all stand or fall together.

Claims 1-6, 8, and 18-21 are method claims which contain the limitation that while the web is being slit to a first selected width, a second slitter assembly is adjusted into second slitting width positions which are different than the first selected widths, followed by the step of cutting with the second slitter assembly. As argued above, applicant has shown the examiner has not made a *prima facie case* that this limitation is contained in or made obvious by the prior art.

In addition, claims 3, 6, 20 and 21 are separately patentable because they add the step of forming a full width web, and claims 6 and 21 add applying glue to the full width web. This step of forming a full width web between two sets of slits is unique in the context of applicant's process and helps define the process of how the transition is made from the slits of first widths to slits of second widths. Although during the first interview the examiner agreed to consider the allowability of a claim based on claims 6 and 20, (now claim 21) these claims remain rejected and yet the examiner has nowhere asserted that this step is old or obvious in combination with the limitations of claim 1. It is difficult to see where there is a reason for performing this step in combination with the other limitations of the claims unless following the blueprint of applicant's invention.

Claims 18-20 are method claims and are separately patentable because in addition to including the limitation on adjusting a second slitter assembly while a first slitter assembly is operating, also include roll cores of first selected widths and second selected widths. Although the prior art teaches having two winder stations, which could have roll centers/cores of different widths, this limitation clearly differentiates over *Stefanoni* which has two sets of

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cutting blades, but which are not shown or suggested to have one set of blades adjusted while the other is cutting, and so *Stefanoni* does not show roll centers/cores of different widths between subsequent winder stations. Thus the combination of roll centers/cores of first widths and second widths as described in claims 18-20 further patentably distinguishes over the art of record.

Claims 10, 11-14, and 16 are to an apparatus and are separately patentable, the apparatus having a first adjustable slitter assembly, and a second adjustable slitter assembly of widths different than the first slitter assembly, and in addition a first winder station with roll centers of first width, and a second winder station with roll centers of second widths. The apparatus claims can not use as a limitation the process limitation of adjusting one slitter assembly while the other is cutting. However the combination of having two adjustable slitter assemblies which are set to different widths and two sets of roll centers which correspond to the different widths of the slitter assemblies distinguish over the art of record.

Stefanoni does not suggest slitter assemblies which are adjusted to different width positions, and further does not suggest winder stations containing roll centers of widths which correspond to differently set slitter assemblies. The art of record which suggests winder stations containing roll centers of different widths, does not suggest two slitter assemblies which are adjusted to widths corresponding to one or the other of the roll centers in the two winder stations. The examiner has not shown any suggestion in the prior art to adjust the *Stefanoni* slitter assemblies to different widths, and to have winder cores in two winder stations which correspond to the widths to which the slitter assemblies are adjusted.

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In view of the Examiner's failure to make out a prima facie showing of obviousness it is requested that the Examiner's rejection of the appealed claims be overruled.

Respectfully submitted,



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Appendix (37 C.F.R. §1.192(c)(9))

The following claims are on appeal:

1. A method for winding and slitting a paper web in a papermaking line, comprising the steps of:

dividing a web longitudinally into a plurality of slit webs of first selected widths;

winding the slit webs about roll centers, to form rolls at a winding station;

periodically cutting the web in a cross machine direction with a web-severing device

in conjunction with a roll set change on the winding station, wherein the

improvement comprising:

slitting the web with a first slitter assembly adjusted to the first selected widths, while

a second slitter assembly is adjusted into second selected slitting width

positions which are different than the first selected widths, followed by cutting

the web in the cross machine direction with the web-severing device, followed

by slitting the web with the second slitter assembly, while the first slitter

assembly is adjusted into alternative selected slitting width positions.
2. The method of claim 1, wherein in the first slitting assembly and the second
slitting assembly are disposed in succession along the travel direction of the web.

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3. The method of claim 1 wherein, during the roll set change of the winding operation, the first slitter assembly is driven into an open position in order to produce a desired length of full-width web, after which the second slitter assembly is driven into a slitting position in order to divide the web into slit webs.

4. The method of claim 3 wherein the periodic cutting of the web in the cross machine direction is obliquely to the web travel direction at an area of the desired length of full-width web.

5. The method of 1 wherein, prior to the roll set change at a first winding station, the slit webs are wound into finished rolls and a second winding station is prepared for winding by inserting new roll centers in place and driving the winding station to a synchronous speed with the speed of the web.

6. The method of claim 1 wherein, the step of periodically cutting the web includes the operation of using the web-severing device to apply glue or similar adhesive to an area of the full-width length of the web, close to the severing point of the web, in order to attach a tail of the web to the roll centers at the winding station.

8. The method of claim 7, wherein the web is passed from the papermaking machine to the winding station via a drawing nip formed by two rolls.

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10. An apparatus in a papermaking line for slitting and winding a paper web comprising:

a paper web, defining a direction of travel, extending through a first adjustable slitter assembly set to produce a plurality of first slit webs of first selected widths, a second adjustable slitter assembly set to produce a plurality of second slit webs of second selected widths, which differ from the first selected widths, a web-severing device, and a first winder station having a first plurality of roll centers corresponding to the first slit webs of the first selected widths and a second winder station having a second plurality of roll centers corresponding to the second slit webs of the second selected widths, the first winder station and the second winder station being arranged to alternate so as to receive corresponding first slit webs of the first selected widths on the first plurality of roll centers in the first winder station and second slit webs of the second selected widths on the second plurality of roll centers in the second winder station, wherein the first adjustable slitter assembly and the second adjustable slitter assembly are arranged to alternate in cutting the web, and each of the first slitter assembly, and the second slitter assembly being adjustable, when not cutting the web, to vary the web slit widths.

11. The apparatus of claim 10, wherein the first adjustable slitter assembly and the second adjustable slitter assembly are disposed in succession along the travel direction of the web.

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13. The apparatus of claim 10, wherein said web-severing device is adapted to cut the web obliquely to the web travel direction.

14. The apparatus of claim 10, wherein said web-severing device includes means for applying glue or similar adhesive close to a severing point of the web in order to attach a tail of the web to the roll centers.

16. The apparatus of claim 15, further comprising a drawing nip for passing the web from the preceding papermaking apparatus to the first adjustable slitter assembly and the second adjustable slitter assembly, the drawing nip for keeping a proper tension of the running web at the web's delivery from said preceding processing step.

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18. A method for winding and slitting a paper web in a papermaking line, comprising the steps of:

alternately slitting a moving web, which defines a travel direction, with a first slitter assembly to divide the web longitudinally into a first plurality of slit webs of first selected widths, and winding said first plurality of slit webs onto a first plurality of winding cores of first selected widths, and simultaneously adjusting a second slitter assembly into a second selected slitting width position followed by;

cutting the web in the cross machine direction with a web-severing device in conjunction with a roll set change on a winding station which receives the web from the slitter assemblies, followed by slitting the web with the second slitter assembly and winding said second plurality of slit webs onto a second plurality of winding cores of second selected widths.

19. The method of claim 18 wherein the first slitting assembly and the second slitting assembly are disposed in succession along the travel direction of the web.

20. The method of claim 18 wherein, during the roll set change of the winding operation, the first slitter assembly is driven into an open position in order to produce a desired length of full-width web, after which the second slitter assembly is driven into a slitting position in order to divide the web into slit webs.

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21. A method for winding and slitting a paper web in a papermaking line, comprising the steps of:

- dividing a web longitudinally into a plurality of slit webs of first selected widths;
- winding the slit webs about roll centers, to form rolls at a winding station;
- periodically cutting the web in a cross machine direction with a web-severing device in conjunction with a roll set change on the winding station, wherein the improvement comprises:
 - slitting the web with a first slitter assembly adjusted to the first selected widths, while a second slitter assembly is adjusted into second selected slitting width positions which are different than the first selected widths, followed by cutting the web in the cross machine direction with the web-severing device, followed by slitting the web with the second slitter assembly, while the first slitter assembly is adjusted into alternative selected slitting width positions; and
 - wherein, during the roll set change of the winding operation, the first slitter assembly is driven into an open position in order to produce a desired length of full-width web followed by the step of using the web-severing device to apply glue or similar adhesive to an area of the full-width web, after which the second slitter assembly is driven into a slitting position in order to divide the web into slit webs.